

6. *Colouring Matter of the Bile.*—POLLI, one of the most energetic of the Italian physiological chemists, has recently published (in his own Journal) a memoir on the nature of the colouring matters of the blood and bile. The following are his principal conclusions:

1st. The yellow pigment of the bile and the red pigment of the blood, are one and the same substance in different stages of oxidation.

2d. The occasionally green and occasionally yellow colour of the bile contained in the faeces, the different tints in the skin in jaundice, and the change of colour observed in ecchymoses, are all dependent on different stages of oxidation of the same pigment.

3d. The red colouring matter of the blood is converted into yellow during its retrograde metamorphosis; the yellow pigment being in fact hæmatin that is no longer of service in the system, or has become excrementitious.

4th. The yellow pigment appears to be formed in part within the vascular system by a direct metamorphosis of the hæmatin of the corpuscles: taking place slowly in healthy persons, but rapidly in jaundiced ones. In both cases a corresponding quantity of it is discharged by the urine. The remainder of the yellow pigment is formed in the liver from the blood or its colouring matter by a process of reduction.—*Day's Report, in Ranking's Abstract, from Annali di Chim., Jan. 1846.*

7. *Detection of Mercury in the Pus from a Bubo.*—In order to disperse a bubo, a man had been ordered to rub in several ounces of mercurial ointment. Poultices were applied, and when the gland was opened, the pus was collected and analyzed. It yielded unequivocal traces of quicksilver.—*Lond. Med. Gaz., July; from Heller's Archiv., 1847, H. 2. S. 185.*

## MATERIA MEDICA AND PHARMACY.

8. *Citrate of Magnesia as a Purgative.*—M. RAGE DELABARRE, in making some experiments with salts of magnesia, had occasion to observe that the citrate of magnesia is devoid of the bitter and disagreeable taste which characterizes the other salts of this base; he has hence been induced to recommend it as a purgative. "It may be obtained," he says, "in two different ways. It may be made by double decomposition from sulphate of magnesia and citrate of soda, or by saturating a solution of citric acid with magnesia or the basic carbonate. If it be prepared by saturating a solution, somewhat concentrated, of the acid, the liquor which is at first liquid and transparent, becomes in an instant a hard mass, adhering strongly to the sides of the vessel in which the combination is effected. This arises, probably, from the water which at first holds the salt in solution, passing to the state of water of hydration.

The neutral citrate of magnesia, prepared by either of the processes above described, is a white pulverulent insipid salt, soft to the touch, heavier than magnesia, and soluble in water aided by the addition of a slight excess of the acid. This solution has a slightly acid taste, but is in no way disagreeable.

M. Delabarre proposes the following formulæ for the administration of the citrate of magnesia:—

### No. 1 (mild).

		grammes.	grains.
Citrate of magnesia,	- - - - -	40	= 617·369
Citric acid,	- - - - -	2	= 30·868
Simple syrup,	- - - - -	125	= 1929·252
Essence of orange,	- - - - -	q. s.	
Water charged with carbonic acid,	- - - - -	q. s.	

to fill a common mineral water bottle, containing 750 grammes (about the size of a wine bottle).

## No. 2 (strong).

		grammes.	grains.
Citrate of magnesia,	- - - - -	50	771.701
Citric acid, - - - - -	- - - - -	2½	38.585
Simple syrup, - - - - -	- - - - -	150	2315.103
Essence of orange, - - - - -	- - - - -	q. s.	
Carbonic acid water, - - - - -	- - - - -	q. s.	

for a wine bottle.

The following is the formula for making 100 bottles of the above, each containing 50 grammes, or 771 grains of the citrate:—

Dissolve 6 pounds 9 ounces and 364 grains (avoirdupois weight) of crystallized citric acid in 22 pounds of water, and add to the solution 1 pound 5 ounces and 83 grains (avoird.) of calcined magnesia. When the combination has been effected, filter the solution, and add to it 33 pounds (avoird.) of simple syrup flavoured with essence of orange. Distribute this solution in one hundred wine quart bottles.

Then precipitate 2 pounds 10 ounces and 145 grains (avoird.) of sulphate of magnesia, with a sufficient quantity of carbonate of soda, in the usual way: wash the precipitate, put it into a proper apparatus, with about 90 pints of water, and pass carbonic acid through it until the magnesia is dissolved. This being effected, use the solution thus formed to fill up the bottles into which the previous solution has been put.

MM. Renauldin and Soubeiran, in their report on the above mineral water state:—"The proportion of magnesia in the citrate is sensibly the same as that in an equal weight of the crystallized sulphate, but the former salt is not so powerful in its medicinal effects as the latter, the fifty grammes or 771 grains of citrate contained in the bottle of mineral water, being about equal in effect to thirty or thirty-five grammes (463 or 540 grains) of crystallized sulphate.

Notwithstanding the large quantity of citrate in the mixture, the taste does not at all indicate the presence of any salt; it resembles lemonade in flavour, and acts as a purgative, quite as well as the ordinary Seidlitz water. It certainly affords, from its agreeable taste, a good method of overcoming the repugnance of some patients to purgative medicines. It occasions neither thirst nor tenesmus, and but little pain during its operation; it may therefore be said that it operates safely and agreeably. Our observations would indicate that the proper dose of the salt is forty-five grammes (694 grains) for a man, and forty grammes (617 grains) for a woman.

In the preparation of the magnesian lemonade, according to the above formula, the first part of the operation consists in making a citrate of magnesia with excess of acid. In the second part of the process, part of the free citric acid is saturated with the carbonate of magnesia, carbonic acid being at the same time set free so as to make it an effervescent water, while there is sufficient uncombined citric acid to give it an acidulous taste.—*Dub. Med. Press*, Aug. 1847, from *Pharm. Journ.*

9. *Dressing of Blisters.* (*Monthly Journ. Med. Sci.*)—Dr. D. MACLAGAN has been in the habit, for some years, of dressing blisters with cotton wadding, instead of the ordinary ointments, and has found it, he says, very convenient in practice. His plan is the following: after a blister has been applied for the requisite number of hours, it is to be removed, and the part covered for two hours with a soft warm poultice of bread and milk. The effect of the poultice generally is to make the vesication more complete, and at the same time to moderate the tenderness of the blistered part. When the poultice is taken off, the vesication, if it has not burst spontaneously, is to be cut so as to discharge the serum, and then a thick layer of soft cotton wadding applied over the part with the undressed or woolly surface next the skin. If, in the course of a few hours, this should become soaked with the serous discharge from the blister, so much of the cotton may be removed as can be done without disturbing the loose epidermis beneath, and the whole again covered with a dry layer of cotton. This is all the dressing which is in general requisite. The cotton is allowed to stick to the skin of the blistered part, and when a fresh layer of epidermis is formed, which takes place very readily, the old epidermis and cotton come off together, leaving a smooth whole surface below.

The advantages of this plan he states to be:—first, that it renders the blister much less painful and annoying to the patient than when unguents are used. The tenderness in fact is comparatively so trifling, and the protection by the cotton so good, that he has been enabled, without annoyance to the patient, to percuss freely, and apply the stethoscope firmly over blistered parts which had been dressed for the first time only an hour or two previously: secondly, the blisters heal faster under it than under dressings with cerate; for, although the cotton may remain adhering for some days, he has generally found that within twelve hours the patient ceases to feel the blister a source of annoyance. Lastly, it dispenses with the greasy applications so disagreeable to patients of cleanly habits.

10. *Cusparia* or *Angustura*. By ROBERT DICK, M. D.—This is a warm tonic, extremely useful in cases exactly fitted for it, but sometimes producing much febrile excitement. In France, it is regarded as a tonic of about equal power with calumba, quassia, and simaruba; but it differs considerable from these, and is far more stimulating. If we might borrow from the vocabulary of Giacomini, we should describe *cusparia* as a very pure gastro-enteric hypersthenic; in other words, a tonic, approaching, as nearly as possible, to a stimulant of the mucous membrane of the stomach and bowels. It is peculiarly indicated in atony of the stomach and bowels, accompanied with an exsanguine condition of the mucous membrane. But in debility of the digestive organs from an active cause—that is, depending on, or accompanied by, the slightest degree of pyrexia and capillary congestion, it is contraindicated. In mucous diarrhoea of a passive character, it is useful; also in cases of simple flatus, as of that of a gentleman who now consults me. The colon becomes distended with large quantities of gas, entirely devoid of smell, but the presence of which proves extremely irksome to him,—a young man, of nervous temperament, and exercising a profession which requires him to speak in public.—*Lancet*, July 3, 1847.

11. *On the Properties of the Iberis Amara*.—DR. SILVESTER communicated to the south-eastern branch of the Provincial Medical and Surgical Association, at their last annual meeting, a paper on the virtues and properties of the *Iberis Amara*, or Candytuft, a remedy brought to light by the late Dr. Williams during a course of therapeutical researches at St. Thomas's Hospital. Many striking and remarkable cases were related in proof of its salutary power over asthma, bronchitis, dropsy, and more especially cardiac hypertrophy. It seems that it does not diminish the velocity of the heart's action like digitalis, but that it possesses the property of controlling the violence and sharp action of the organ, and softening the pulse; hence its great value in hypertrophy with dropsy.

Dr. Silvester had prescribed it for ten years in numerous instances of the above-mentioned diseases, always with some benefit, and sometimes with almost magical efficiency. It ought not, as the author of the paper well observed, to be administered rashly, as is too often the case with new remedies; for then, from its frequent failure, it would be, as it had been before, as rashly laid aside. A careful adaptation of the remedy to the disease, or its symptoms, was essential to its success; no ill effects followed its use; it occasionally induced giddiness, sickness, or diarrhoea, but these subsided on discontinuing the medicine. Its curative power was not dependent on such occasional consequences of its administration, inasmuch as its control over the abnormal action of the heart was equally evident whether these effects were absent or present; its influence being like digitalis, belladonna, and some other natural agents, of a purely specific character. The dose prescribed was from one to three grains, generally mixed with cream of tartar, which concealed the nauseousness of the taste, and secured a perfect trituration and division of the tough seed.

The leaves, stem, and root, possess similar properties; but from convenience, and from their greater relative strength, the seeds were the parts of the plant chiefly employed. *Iberis* is a family of plants belonging to the order Cruciferae. The *Iberis* in question is the *I. amara*, *Linn.*, found plentifully in every garden, and cultivated for its brilliant milk-white flowers. It appears from the researches of the author, that this valuable plant was not only known to Pliny, and is mentioned by him in his Natural History, as a remedy for gout, but that it was accurately

described by Aetius, Paulus Ægineta, and Oribasius, and lauded by these venerable fathers of medicine as an excellent external and internal medicament in various diseases. It passed under the several names of Iberis, Cardamine, Lepidium vel Lepidum. Aetius has a long chapter headed "De Iberide sive Cardamine quæ et Lepidium vocatur." He remarks that Galen had written fully on its application in rheumatic affections of the hip-joint; and that Archigenes had prescribed it "in splenicis et coxendicibus;" and in an epistle to Aristo, which is quoted, had entered copiously into the subject of its botanical character, observing that its flowers were milk-white.

The Nasturtium, a plant akin to the Cardamine, is spoken of as a valuable addition to those medicines which relieve difficulty of breathing, and which dry up thick humours. Paulus Ægineta describes the Iberis et sylvestre Nasturtium as identical, and speaks of their value "non solum coxendicum sed etiam aliis diuturnis morbis." Oribasius employs similar terms of eulogy in his description of the plant in question, so that no doubt can exist of its high estimation amongst the Greek practitioners. There is an incidental proof in Lindley's "Introduction to the Natural System," of the correctness of the belief that the order Cruciferae contains many plants of value in the treatment of asthma and dropsy. It is there said that Prince Maximilian of Wied Neuwied, relates of the Brazilian Indians, that they used a kind of cress, resembling that of Europe, as a good remedy for asthma. The Iberis amara is a true cress.—*Prov. Med. and Surg. Journ.*, July 28th, 1847.

12. *Electric Moxa.* By Dr. GOLDING BIRD.—It was long ago observed by Humboldt, and afterwards by Grapengiessier, that when a simple galvanic arc was applied to a blistered surface, the part opposed to the most oxidizable metal was more irritated than that to which the negative plate was applied. In applying such a simple arc to the treatment of paralysis, I was struck with the remarkable effects produced, and such a combination of its results induces me to propose the following ready mode of establishing a discharge from the surface of the body. Order two small blisters, the size of a shilling, to be applied to any part of the body, one a few inches below the other; when the cuticle is thus raised by effused serum, snip it, and apply to the one from whence a permanent discharge is required, a piece of zinc foil, and to the other a piece of silver; connect them by a copper wire, and cover them with a common water dressing and oiled silk. If the zinc plate be raised in a few hours, the surface of the skin will look white, as if rubbed over with nitrate of silver. In forty-eight hours, a decided eschar will appear which (still keeping on the plates) will begin to separate at the edges in four or five days. The plates may then be removed, and the surface where the silver was applied will be found to be completely healed. A common poultice may be applied to the part, and a healthy, granulating sore, with well-defined edges, freely discharging pus, will be left. During the whole of this process, if the patient complains of pain at all, it will always be referred to the silver plate, where, in fact, the blister is rapidly healing, and not the slightest complaint will be made of the zinc plates, where the slough is as rapidly forming. A very interesting physiological phenomenon is observed in making an issue by these means. If the plates be applied to a limb, and on different places, contraction of the subjacent muscles will always be observed most severe when the patient is in the act of falling to sleep; and in a few cases, these sensations have been sufficiently annoying to induce the patient to untwist the wires fixed to the plate, when by interrupting the current these feelings ceased. But if the plates were applied to opposite sides of the body, as when on the chest to different sides of the mesial line, no contractions whatever occurred. This admits of explanation by a reference to the fact of the nerves not crossing the middle line of the body.—*London Medical Gazette*.

13. *Di-Arsenite of Quinine.*—Dr. KINGDON read to the South-Western Branch of the Provincial Medical Association, at their annual meeting on the 16th of July last, a notice of a new preparation of quinine which he had lately succeeded in preparing. It is the di-arsenite,—that is, it consists of one part of arsenious acid, and two of quinine; it is a powerful medicine, and one which he has found of great benefit, especially in chronic cutaneous affections, and has no doubt it would

be equally beneficial in ague, tic douloureux, and neuralgia. It possesses both the qualities of a mineral and vegetable tonic, and when the system has become habituated to either the one or the other, (which we frequently find the case from long-continued use,) by the administration of this medicine you still keep up the former action, while at the same time a new one is introduced into the system. He related a case which demonstrates this very satisfactorily. A young woman who had been affected with lepra six years, was admitted a patient at the Exeter Dispensary, under his care, and was ordered the liq. potassæ arsenitis, with decoct. dulcamaræ, three times a day. For a time the disease appeared to be improving, but it gradually got back to its former state, although the quantity of arsenical solution was increased to the full extent; he then ordered one-third of a grain of di-arsenite of quinine to be taken twice a day, and the following week the eruption was much improved; to make use of her own expression, "it was looking quite beautiful." It has been gradually increased to four times a day, and now she is nearly well.

Dr. Kingdon has tried it in several other cutaneous diseases, and with equal success. The preparation is made in the following manner:—He first dissolves 64 grains of arsenious acid, and 32 grains of pearl ashes, or subcarbonate of potash, in four ounces of distilled water, by boiling it for about half an hour, and then makes it up to four ounces with as much water as may be required, so that each drachm may contain two grains of arsenic. He adds five drachms of this solution to two scruples of disulphate of quinine, previously dissolved in boiling distilled water; immediately a white curdy precipitate is formed, which is the di-arsenite of quinine; he then pours it on a filter, well washes it, and leaves it on the filter to dry. When the proportions are accurately weighed, the water is neutral, and no arsenic can be detected. It is uncrystallizable and insoluble in water, but soluble in alcohol. He gives the one-third of a grain for a dose twice a day, and gradually increases it to three and four times in the course of the day, either made into pills with bread, or in the form of powders mixed with a little sugar or gum; of course nothing acid must be given at the same time, as that would decompose it.—(*Provincial Medical and Surgical Journal*, Aug. 25, 1847.)

## MEDICAL PATHOLOGY AND THERAPEUTICS AND PRACTICAL MEDICINE.

14. *Efficacy of Compression of the Epigastrium for the cure of Hiccup.*—The employment of compression of the epigastrium to arrest constant hiccup, was suggested to M. ROSTAN, a long time since, by an old physician of Paris, whose wife was subject to attacks of hysteria, during which she suffered from incessant hiccup. This physician had remarked that his wife experienced remarkable relief from strong compression on the epigastrium with the hand. Since this period M. Rostan has employed this simple means in many cases of the same kind and constantly with good effect, whatever might be the cause of the hiccup. To render the pressure constant, M. R. has used, instead of the hand, a pad with a truss spring.—*La Lancette Française*, Feb. 20, 1847.

M. BOYER (*Révue Méd. Chirurgicale*, July, 1847), relates three cases of painful and obstinate hiccup instantly relieved by the above means. Bordeu recommended long ago, this plan, which had fallen into oblivion.

15. *Scurvy.*—The *Dublin Medical Press* (July 21st, 1847), contains an interesting paper on this disease, which is now prevailing very extensively in Great Britain, and particularly in Ireland, by Dr. O. B. Bellingham. Six cases of the disease are related, from an analysis, for which he presents the following as the more prominent symptoms of the present epidemic.

"*Appearance of the gums.*—The first appearance of the disease in the gums is slight swelling and increased redness of these parts, with a tendency to bleed, commencing usually upon the inside of the incisor teeth of the upper jaw, but soon extending to both; the swelling gradually engages the gums lining the molar teeth, particularly upon the inside, or it may commence here. When the disease